8808-54-25

NUS CORPORATION
999 WEST VALLEY ROAD
WAYNE, PENNSYLVANIA 19087
215-687-9510

CONFIDENTIAL

February 23, 1989
R-585-10-8-23
68-01-7346

Mr. Ben Mykijewycz
U.S. Environmental Protection Agency
841 Chestnut Building
Ninth and Chestnut Streets
Philadelphia, Pennsylvania 19107

Subject: Final Report
TDD No. F3-8808-54
EPA No. DE-170
Wilmington Amtrak Railyard - Maintenance Facility
Wilmington, New Castle County, Delaware

Dear Mr. Mykijewycz:

Submitted herewith is the final Preliminary Assessment report for the subject site. The contents of the report are based on an evaluation of information contained in the state and EPA files for the site, on the result of a review of regional and local hydrogeologic literature, and on data collected during a field evaluation performed in August 1988. Based on this review, the following is offered for EPA's consideration:

- It is recommended that no further remedial action under CERCLA be pursued. A rough Hazard Ranking System (HRS) PREscore of 8.06 was obtained for the site. This score is based on available and projected information and is reflective of the lack of targets via both groundwater and surface water routes.

In the event that a site inspection, to include the collection of samples, is deemed warranted, the following sampling points should be considered.

Proposed Sampling Plan

The proposed sampling locations include the following:

- Aqueous and sediment samples should be collected upstream and downstream from the confluence of the tributary to Shellpot Creek, along Shellpot Creek.

- An aqueous and sediment set should be obtained at the location of the Amtrak NPDES sampling point on the tributary to Shellpot Creek.

- Aqueous and sediment samples should be collected upstream and downstream from the facility on Brandywine Creek.

PFE
ORIGINAL (Red)

Composite solid samples, to include surface and auger soils, should be collected from the following locations:

- Samples should be collected along the transformer maintenance track (track no. 5), west of the entrance to the locomotive shop.
- Samples should be collected at the eastern entrance to the locomotive shop, closest to the transformer repair area.
- The soils in the drum staging area west of the powerhouse should be sampled.
- The spent oils drum storage area, east of the northeastern corner of car shop no. 1, should be sampled.

The Amtrak Wilmington Maintenance Facility is a 54-acre railyard utilized for the repair, maintenance, and overhaul of locomotives and passenger railcars. Sulfuric acid is currently the only hazardous waste stored on site. Although the use of polychlorinated biphenyls (PCBs) in transformers ceased in the 1970s, older locomotives suspected of containing contaminated oils are maintained or repaired only on a sealed maintenance track or within designated transformer repair areas. The site maintains a wastewater treatment facility and is permitted by the city of Wilmington for discharges from the treatment system's effluent into the city's sewer system. The facility also possesses an NPDES permit for surface runoff into Shellpot Creek and a tributary to Brandywine Creek. Both streams are monitored regularly for PCBs and other contaminants.

A sampling of over 400 soils throughout the yard by Amtrak, from 1980 to 1984, revealed high levels of PCB contamination from past oil spills and releases. Approximately 10,000 cubic yards of contaminated soils were removed in 1984 and 1985. All work was completed with the guidance of state and federal agencies.

The site is located within one mile west of the Delaware River, on the eastern edge of Center City Wilmington. All residents within the study area are believed to rely on public supplies for drinking water. The sources for these suppliers are located either one mile or more upstream or outside of the study area.

If you have any further questions, please contact me.

Respectfully submitted, Reviewed by, Approved by,

"Non-Responsive-Based on Revised Scope"

Project Manager Section Supervisor Regional Operations Manager, FIT 3

LL/sw

Attachments

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Amtrak Wilmington Railyard
F3-8808-54
DE-170

Pre-score Worksheets

PFE

ORIGINAL (Red)

Ground Water Route Work Sheet

Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Observed Release	(0) 45	1	0	45	3.1
If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2.					
2 Route Characteristics					3.2
Depth to Aquifer of Concern	0 1 2 (3)	2	6	6	
Net Precipitation	0 1 (2) 3	1	2	3	
Permeability of the Unsaturated Zone	0 1 2 (3)	1	3	3	
Physical State	0 1 2 (3)	1	3	3	
Total Route Characteristics Score			14	15	
3 Containment	0 1 2 (3)	1	3	3	3.3
4 Waste Characteristics					3.4
Toxicity/Persistence	0 3 6 9 12 15 (18)	1	18	18	
Hazardous Waste Quantity	0 1 2 3 4 5 6 (7) 8	1	7	8	
Total Waste Characteristics Score			25	26	
5 Targets					3.5
Ground Water Use	0 (1) 2 3	3	3	9	
Distance to Nearest Well/Population Served	(0) 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40	
Total Targets Score			3	49	
6 If line 1 is 45, multiply 1 x 4 x 5. If line 1 is 0, multiply 2 x 3 x 4 x 5			3150	57,330	
7 Divide line 6 by 57,330 and multiply by 100		S_{gw} = 5.49			

GROUND WATER ROUTE WORK SHEET

Prepared by:

[redacted]

9/23/88 [redacted] for [redacted] 10-12-88

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Prescore

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Surface Water Route Work Sheet

Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Observed Release	(0) 45	1	0	45	4.1
If observed release is given a value of 45, proceed to line 4. If observed release is given a value of 0, proceed to line 2.					
2 Route Characteristics					4.2
Facility Slope and Intervening Terrain	(0) 1 2 3	1	0	3	
1-yr. 24-hr. Rainfall	0 1 (2) 3	1	2	3	
Distance to Nearest Surface Water	0 1 2 (3)	2	6	6	
Physical State	0 1 2 (3)	1	3	3	
Total Route Characteristics Score			11	15	
3 Containment	0 1 2 (3)	1	3	3	4.3
4 Waste Characteristics					4.4
Toxicity/Persistence	0 3 6 9 12 15 (18)	1	18	18	
Hazardous Waste Quantity	0 1 2 3 4 5 6 (7) 8	1	7	8	
Total Waste Characteristics Score			25	26	
5 Targets					4.5
Surface Water Use	0 1 (2) 3	3	6	9	
Distance to a Sensitive Environment	0 1 (2) 3	2	4	6	
Population Served/Distance to Water Intake Downstream	(0) 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40	
Total Targets Score			10	55	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			8250	64,350	
7 Divide line 6 by 64,350 and multiply by 100		S_{sw} =	12.82		

SURFACE WATER ROUTE WORK SHEET

[redacted] 9/23/88

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Predecessor

PFE

	S	ORIGINAL (Red) S^2
Groundwater Route Score (S_{gw})	5.49	30.14
Surface Water Route Score (S_{sw})	12.82	164.35
Air Route Score (S_a)	N/A	N/A
$S_{gw}^2 + S_{sw}^2 + S_a^2$		194.49
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		13.95
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		8.06

FIGURE 10
WORKSHEET FOR COMPUTING S_M

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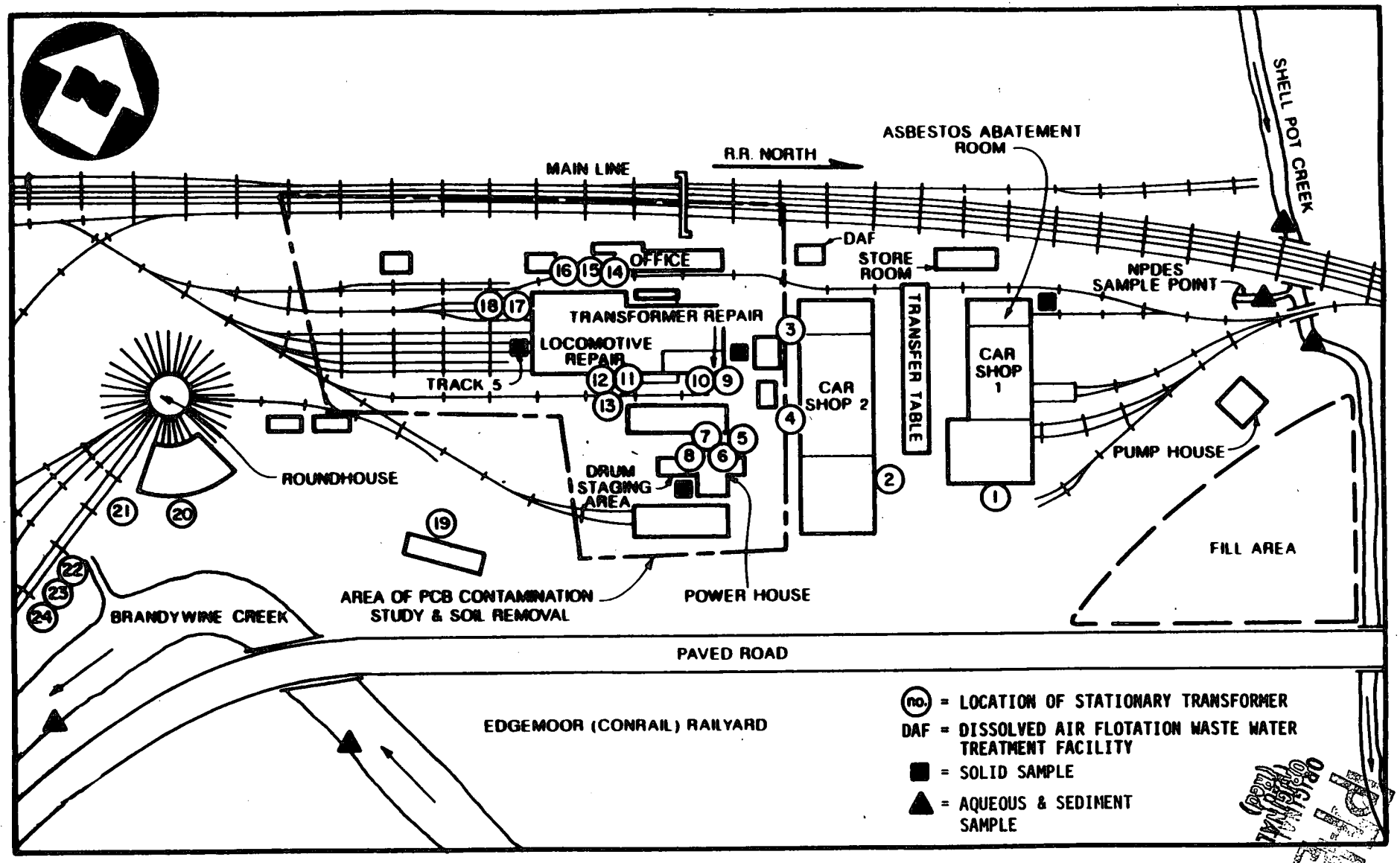

PROPOSED SAMPLE LOCATION MAP

WILMINGTON AMTRAK RAILYARD MAINTAINENANCE FACILITY

(NO SCALE)

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